RAW SEQUENCE LISTING

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) no errors detected.

Application Serial Number:	10/801.493A
Source:	1FW/6
Date Processed by STIC:	5/4/06
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IFW16

RAW SEQUENCE LISTING DATE: 05/04/2006
PATENT APPLICATION: US/10/801,493A TIME: 12:01:05

Input Set : A:\00281EUS.txt

Output Set: N:\CRF4\05042006\J801493A.raw

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4 <110> APPLICANT: Yan, Riqiang
        Tomasselli, Alfredo G.
5
        Gurney, Mark E.
6
        Emmons, Thomas L.
7
        Bienkowski, Mike J.
8
        Heinrikson, Robert L.
11 <120> TITLE OF INVENTION: SUBSTRATES AND ASSAYS FOR BETA-SECRETASE ACTIVITY
13 <130> FILE REFERENCE: 29915/00281EUS
15 <140> CURRENT APPLICATION NUMBER: 10/801,493A
16 <141> CURRENT FILING DATE: 2004-03-16
18 <150> PRIOR APPLICATION NUMBER: 09/908,943
19 <151> PRIOR FILING DATE: 2001-07-19
21 <150> PRIOR APPLICATION NUMBER: 60/219,795
22 <151> PRIOR FILING DATE: 2000-07-19
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29 <211> LENGTH: 2070
30 <212> TYPE: DNA
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38 gtgggcagcc ccccgcagac gctcaacatc ctggtggata caggcagcag taactttgca 300
39 qtqqqtqctq cccccaccc cttcctgcat cgctactacc agaggcagct gtccagcaca 360
40 taccqqqacc tccggaaggg tgtgtatgtg ccctacaccc agggcaagtg ggaaggggag 420
41 ctgqqcaccg acctggtaag catcccccat ggccccaacg tcactgtgcg tgccaacatt 480
42 getgecatea etgaateaga caagttette ateaaegget eeaaetggga aggeateetg 540
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Input Set : A:\00281EUS.txt

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59 aaqtqaqqaq qcccatqqqc agaagataga gattcccctg gaccacacct ccgtggttca 1560
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62 ggactgtacc tgtaggaaac agaaaagaga agaaagaagc actctgctgg cgggaatact 1740
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66 agaccaagct tgtttccctg ctggccaaag tcagtaggag aggatgcaca gtttgctatt 1980
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82 Gly Leu Gly Gly Ala Pro Leu Gly Leu Arg Leu Pro Arg Glu Thr Asp
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88 Asp Asn Leu Arg Gly Lys Ser Gly Gln Gly Tyr Tyr Val Glu Met Thr
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91 Val Gly Ser Pro Pro Gln Thr Leu Asn Ile Leu Val Asp Thr Gly Ser
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94 Ser Asn Phe Ala Val Gly Ala Ala Pro His Pro Phe Leu His Arg Tyr
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                                  105
97 Tyr Gln Arg Gln Leu Ser Ser Thr Tyr Arg Asp Leu Arg Lys Gly Val
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100 Tyr Val Pro Tyr Thr Gln Gly Lys Trp Glu Gly Glu Leu Gly Thr Asp
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103 Leu Val Ser Ile Pro His Gly Pro Asn Val Thr Val Arg Ala Asn Ile
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                                           155
104 145
106 Ala Ala Ile Thr Glu Ser Asp Lys Phe Phe Ile Asn Gly Ser Asn Trp
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                                       170
109 Glu Gly Ile Leu Gly Leu Ala Tyr Ala Glu Ile Ala Arg Pro Asp Asp
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                                                   205
           195
115 Asn Leu Phe Ser Leu His Leu Cys Gly Ala Gly Phe Pro Leu Asn Gln
                           215
                                               220
       210
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121 Asp His Ser Leu Tyr Thr Gly Ser Leu Trp Tyr Thr Pro Ile Arg Arg
```

Input Set : A:\00281EUS.txt

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122	C1,,	Trn	TT's ear	Тиг	245	17-1	т16	Tla	17 = 1		v-1	Glu	Tla	λen	Gly	Gln	
125	GIU	пр	TYL	260	GIU	vaı	116	116	265	ALG	vai	GIU	116	270	Gry	GIII	
	Nan	Lou	Tarc		7 cn	Cvc	Lvc	Glu		Acn	Tur	Acn	Lare		т1Д	บอไ	
	ASP	Leu	ьуs 275	Met	Asp	Cys	цуѕ	280	ıyı	ASII	ıyı	Asp	285	ser	Ile	vai	
128	7. ~~	Com		Πh~	Th~	7 an	T 011		T 011	Dro	Tara	Tara		Dho	Clu	ב [ת	
	_		_	Thr	Thr	ASI	295	Arg	Leu	PIO	ьуѕ	300	vai		Glu		
		290.		o	*1-	Y'		71.	Com	Com	mb~		T				
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	GTÀ	Pne	Trp	Leu	_	GIU	GIN	ьeu	vai	_	Trp	GIII	Ald	GIY	Thr	THE	
137	_	_		-1.	325	D	**- 7	71 -	0	330		T	14-L	a1	335	1701	
	Pro	Trp	Asn		Pne	Pro	vai	тте		ьeu	Tyr	Leu	Met		Glu	Val	
140		_	~ 1	340	m 1	•	-1 -	PT1	345	T	D	~1	~1	350	T	7	
	Thr	Asn		ser	Pne	Arg	TTE		тте	ьeu	Pro	GIN		туг	Leu	Arg	
143	_		355	_			_,	360	~1	_		~	365	.	Dl. a	21-	
			GIu	Asp	Val	Ala		ser	Gin	Asp	Asp		Tyr	ьys	Phe	Ala	
146		370		_	_		375	_,				380			nie .	~3	
				Ser	Ser										Met		
	385					390								• •	'S''		
	GIY	Phe	Tyr	vai		Pne	Asp	Arg	Ala		ьуs	Arg	тте	GLY	Phe	ATA	
152		_		_	405			_	~-	410	_				415	a 1	
	Val	ser	Ala	-	His	vaı	His	Asp		Pne	Arg	Thr	Ата		Val	GIU	
155		_	_,	420					425		G	~1	m	430		Desc	
	GIY	Pro		vai	Thr	Leu	Asp		GIU	Asp	Cys	GIY	_	ASI	Ile	PIO	
158		_,	435	~7		1 · · ·	_	440	m)	-1-		·	445	M	77-	77-	
	GIn		Asp	GIU	Ser	Thr		Met	Thr	шe	Ата	_	vai	Mec	Ala	Ala	
161	-1.	450			D1	16 - L	455	D	.	~	T	460	77- T	a	<i>α</i> 1	П	
		Cys	Ата	Leu	Pne		Leu	Pro	ьeu	Cys		Met	vaı	Cys	Gln	11p 480	
	465	G	T	7	O	470	7	01	01	77 Å ~	475	7 ~~	Dho	71-	7.00		
	Arg	Cys	Leu	Arg	_	Leu	Arg	GIII	GIII		Asp	Asp	Pile	Ата	Asp 495	Asp	
167	- 1 -	a	T	T	485					490					495		
	TIE	ser	Leu		ьys												
170	-01/	n. 01	DO T	500													
			EQ II														
			ENGT														
			YPE:				o i o n	_									
			EQUE!			o sa	prem	5									
						- ~ ~	at aa	taati	a ta	rato	aaca	caa	aaat.	act	acct	gcccac	60
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102	9-99	yayaı	-99 -	caga	caac	ac c	2999!	guad!	g co	3222	cayy	get	acea	cac	taac	tttaas	300
103	9-99	gyca;	guu (gcay	ac g	ttaa	tace	t 22	23 - 3'	tacc	aca	aace	act	atro	tttgca agcaca	360
105	9-99	39.9	acc ·	+ ~ ~ ~	raer	70 t	7177	eyca etati	a co	ntan	2000	aga	ggca	ata	ddaa	ggggag	420
																aacatt	
																atcctg cagtct	
100	9999	~+~~	+~~	acyc	tgag.	ac c	goda	gget	a et	-99t	gurg	ate	tore	CCS	ctee	ctgtac	660
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Input Set : A:\00281EUS.txt

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208 ttamaticto caacccaaag tattohtott ttottagttt cagaagtact ggcatcacac 1800 👾 🕟 🔻
209 gcaggttacc ttggcgtgtg tccctgtggt accctggcag agaagagacc aagcttgttt 1860
210 ccctgctggc caaagtcagt aggagaggat gcacagtttg ctatttgctt tagagacagg 1920
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240 Tyr Gln Arg Gln Leu Ser Ser Thr Tyr Arg Asp Leu Arg Lys Gly Val
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Input Set : A:\00281EUS.txt

Output Set: N:\CRF4\05042006\J801493A.raw

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Input Set : A:\00281EUS.txt

Output Set: N:\CRF4\05042006\J801493A.raw

Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

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Seq#:15; Xaa Pos. 4,7
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Seq#:18; Xaa Pos. 1,2,4,5,6,7
Seq#:21; Xaa Pos. 5
Seq#:27; Xaa Pos. 7,19
Seq#:28; Xaa Pos. 6,7,11,20
Seq#:41; Xaa Pos. 9
Seq#:49; Xaa Pos. 1
Seq#:50; Xaa Pos. 2
Seq#:51; Xaa Pos. 3
Seq#:52; Xaa Pos. 4
Seq#:53; Xaa Pos. 5
Seq#:54; Xaa Pos. 6
Seq#:55; Xaa Pos. 7
Seq#:56; Xaa Pos. 8
Seq#:57; Xaa Pos. 1
Seq#:58; Xaa Pos. 2
Seq#:59; Xaa Pos. 3
Seq#:60; Xaa Pos. 4
Seq#:61; Xaa Pos. 5
Seq#:62; Xaa Pos. 6
Seq#:63; Xaa Pos. 7
Seq#:64; Xaa Pos. 8
Seq#:65; Xaa Pos. 1
Seg#:66; Xaa Pos. 2
Seq#:67; Xaa Pos. 3
Seq#:68; Xaa Pos. 4
Seq#:69; Xaa Pos. 5
Seq#:70; Xaa Pos. 6
Seq#:71; Xaa Pos. 7
Seq#:72; Xaa Pos. 8
Seq#:73; Xaa Pos. 1
Seq#:74; Xaa Pos. 2
Seq#:75; Xaa Pos. 3
Seq#:76; Xaa Pos. 4
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Seq#:78; Xaa Pos. 8
Seq#:79; Xaa Pos. 8
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Seg#:82; Xaa Pos. 2,7
Seg#:83; Xaa Pos. 3,7
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Input Set : A:\00281EUS.txt

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Seq#:86; Xaa Pos. 6,7
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Seq#:88; Xaa Pos. 7,8
Seq#:89; Xaa Pos. 1
Seq#:90: Xaa Pos. 1,2
Seq#:91; Kaa Pos. 1,3
Seq#:92; Xaa Pos. 1,4
Seq#:93; Xaa Pos. 1,5
Seq#:94; Xaa Pos. 1,6
Seq#:95; Xaa Pos. 1,7
Seq#:96; Xaa Pos. 1,8
Seq#:97; Xaa Pos. 1,4,7
Seq#:98; Xaa Pos. 2,4,7
Seq#:99; Xaa Pos. 3,4,7
Seg#:100; Xaa Pos. 4,7
Seq#:101; Xaa Pos. 4,5,7
Seq#:102; Xaa Pos. 4,6,7
Seg#:103; Xaa Pos. 4,7
Seq#:104; Xaa Pos. 4,7,8
Seq#:105; Xaa Pos. 1,4,5,6,7
Seq#:106; Xaa Pos. 1,2,4,5,6,7
Seq#:107; Xaa Pos. 1,3,4,5,6,7
Seg#:108; Xaa Pos. 1,4,5,6,7
Seq#:109; Xaa Pos. 1,4,5,6,7
Seq#:110; Xaa Pos. 1,4,5,6,7
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Seq#:112; Xaa Pos. 1,4,5,6,7,8
Seq#:121; Xaa Pos. 9
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Seg#:169; Xaa Pos. 26
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VERIFICATION SUMMARY

PATENT APPLICATION: US/10/801,493A

DATE: 05/04/2006 TIME: 12:01:06

Input Set: A:\00281EUS.txt
Output Set: N:\CRF4\05042006\J801493A.raw

L:438 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:13 after pos.:0 L:476 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:15 after pos.:0 L:500 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:16 after pos.:0 L:524 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:17 after pos.:0 L:548 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:18 after pos.:0 L:595 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:21 after pos.:0 L:695 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:27 after pos.:0 L:698 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:27 after pos.:16 L:731 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:28 after pos.:0 L:734 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:28 after pos.:16 L:928 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:41 after pos.:0 L:1045 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:49 after pos.:0 L:1064 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:50 after pos.:0 L:1084 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:51 after pos.:0
L:1102 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:52 after pos.:0
L:1121 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:53 after pos.:0 L:1140 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:54 after pos.:0 L:1159 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:55 after pos.:0 L:1178 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:56 after pos.:0 L:1197 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:57 after pos.:0 L:1216 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:58 after pos.:0 L:1235 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:59 after pos.:0 L:1254 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:60 after pos.:0 L:1273 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:61 after pos.:0 L:1292 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:62 after pos.:0 L:1311 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:63 after pos.:0 L:1330 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:64 after pos.:0 L:1349 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:65 after pos.:0 L:1368 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:66 after pos.:0 L:1387 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:67 after pos.:0 L:1406 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:68 after pos.:0 L:1426 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:69 after pos.:0 L:1445 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:70 after pos.:0 L:1464 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:71 after pos.:0 L:1483 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:72 after pos.:0 L:1502 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:73 after pos.:0 L:1521 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:74 after pos.:0 L:1540 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:75 after pos.:0 L:1559 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:76 after pos.:0 L:1578 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:77 after pos.:0 L:1597 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:78 after pos.:0 L:1616 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:79 after pos.:0 L:1635 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:80 after pos.:0 L:1659 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:81 after pos.:0 L:1683 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:82 after pos.:0 L:1707 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:83 after pos.:0 L:1731 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:84 after pos.:0 L:1755 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:85 after pos.:0 VERIFICATION SUMMARY

PATENT APPLICATION: US/10/801,493A

TIME: 12:01:06

Input Set : A:\00281EUS.txt

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L:1779 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:86 after pos.:0
L:1798 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:87 after pos.:0
L:1822 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:88 after pos.:0
L:1841 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:89 after pos.:0
L:1865 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:90 after pos.:0
L:1889 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:91 after pos.:0
L:1913 M:341 W: (46) "n" or "Xaa" used, for SFQ ID#:92 after pos.:0
L:1937 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:93 after pos.:0
L:1961 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:94 after pos.:0
L:1985 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:95 after pos.:0
L:2009 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:96 after pos.:0
L:2038 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:97 after pos.:0
L:2067 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:98 after pos.:0
L:2096 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:99 after pos.:0
L:2120 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:100 after pos.:0
L:2149 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:101 after pos.:0
L:2178 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:102 after pos.:0
L:2202 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:103 after pos.:0
L:2231 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:104 after pos.:0
L:2256 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:105 after pos.:0
L:2285 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:106 after pos.:0
L:2314 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:107 after pos.:0
L:2343 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:108 after pos.:0
L:2377 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:109 after pos.:0
L:2411 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:110 after pos.:0
L:2440 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:111 after pos.:0
L:2469 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:112 after pos.:0
L:2612 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:121 after pos.:0
L:3213 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:134 after pos.:0
L:3232 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:135 after pos.:0
L:3251 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:136 after pos.:0
L:3514 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:154 after pos.:0
L:3533 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:155 after pos.:0
L:3557 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:156 after pos.:17
L:3579 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:157 after pos.:16
L:3598 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:158 after pos.:0
L:3620 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:159 after pos.:15
L:3643 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:160 after pos.:15
L:3665 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:161 after pos.:15
L:3684 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:162 after pos.:0
L:3703 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:163 after pos.:0
L:3728 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:164 after pos.:16
L:3749 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:165 after pos.:16
L:3769 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:166 after pos.:0
L:3791 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:167 after pos.:15
L:3814 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:168 after pos.:15
L:3836 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:169 after pos.:15
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